

Name: _____ Date: _____ Period: _____

Complementary and Supplementary Angles Homework

- 1** $\angle A$ and $\angle B$ are vertical angles. Which statement is not necessarily true?

A The angles are formed by intersecting lines.
B The angles are complementary.
C The angles are not adjacent.
D The angles are congruent.

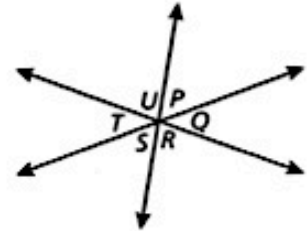
- 2** $\angle J$ and $\angle K$ are vertical angles. If the measure of $\angle J$ is 120° , what is the measure of $\angle K$?

A 30°
B 60°
C 120°
D The measure cannot be determined.

- 3** $\angle F$ and $\angle G$ are complementary angles. They are also vertical angles. Which could be the measures of the angles?

A 45° and 45°
B 30° and 60°
C 50° and 50°
D All of the above are correct.

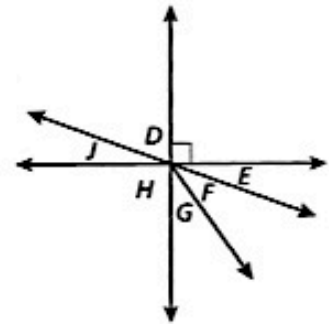
- 4** Which angles are not necessarily congruent?



A $\angle P$ and $\angle S$
B $\angle Q$ and $\angle T$
C $\angle R$ and $\angle U$
D $\angle S$ and $\angle Q$

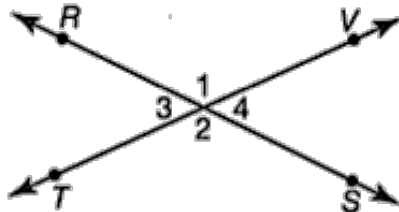


- 5** Which statement is not true?



A $\angle J$ and $\angle E$ are congruent.
B $\angle H$ is a right angle.
C $m\angle G = 20^\circ$
D $m\angle G + m\angle F = m\angle D$

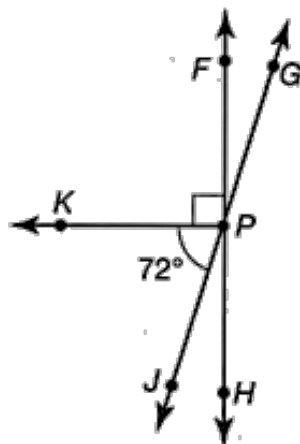
- 4 Lines RS and TV intersect to form angles 1, 2, 3, and 4. The measure of $\angle 2 = 130^\circ$



What are the measures of the other angles?

- F $m\angle 1 = 130^\circ$; $m\angle 3 = 130^\circ$;
 $m\angle 4 = 130^\circ$
 G $m\angle 1 = 50^\circ$; $m\angle 3 = 50^\circ$; $m\angle 4 = 130^\circ$
 H $m\angle 1 = 130^\circ$; $m\angle 3 = 50^\circ$; $m\angle 4 = 50^\circ$
 J $m\angle 1 = 130^\circ$; $m\angle 3 = 60^\circ$; $m\angle 4 = 60^\circ$

In the figure below, lines FH and GJ intersect at point P . Ray PK is perpendicular to line FH . Use this figure to answer Questions 5–9.



- 5 Which is a pair of supplementary angles?

- A $\angle JPK$ and $\angle JPH$
 B $\angle GPH$ and $\angle JPH$
 C $\angle FPG$ and $\angle KPH$
 D $\angle JPH$ and $\angle FPG$

- 6 Which is a pair of complementary angles?

- F $\angle FPG$ and $\angle JPH$
 G $\angle KPJ$ and $\angle KPF$
 H $\angle KPJ$ and $\angle JPH$
 J $\angle KPH$ and $\angle KPF$

- 7 What is the measure of $\angle KPG$?

- A 18°
 B 72°
 C 90°
 D 108°

- 8 What is the measure of $\angle JPH$?

- F 8°
 G 18°
 H 28°
 J 38°

- 9 What is the measure of $\angle FPG$?
 Write the answer.

Answer _____